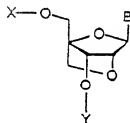


CLAIMS:

1. A nucleoside analogue of the following formula (I):



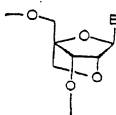
(I)

where B is an analogue of pyrimidine or purine nucleic acid base, and X and Y are identical or different, and each represents a hydrogen atom, an alkyl group, an alkenyl group, an alkynyl group, a cycloalkyl group, an aralkyl group, an aryl group, an acyl group, or a silyl group or an amidite derivative.

2. A nucleoside analogue as claimed in claim 1, wherein X and Y each represents a hydrogen atom.

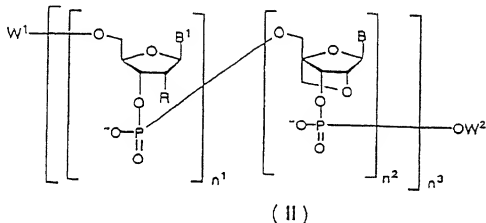
3. A mononucleoside amidite derivative as claimed in claim 1, wherein X is 4,4-dimethoxytrityl (DMTr), and Y is a 2-cyanoethoxy(diisopropylamino)-phosphano group.

4. An oligonucleotide or polynucleotide analogue having one or more structures of the formula (Ia):



(Ia)

5. An oligonucleotide or polynucleotide analogue of the formula (II):



where B1 and B are identical or different, and each represents an analogue of pyrimidine or purine nucleic acid base, R is a hydrogen atom, a hydroxyl group, a halogen atom, or an alkoxy group,

W1 and W2 are identical or different, and each represents a hydrogen atom, an alkyl group, an alkenyl group, an alkynyl group, a cycloalkyl group, an aralkyl group, an aryl group, an acyl group, a silyl group, a phosphoric acid residue, a naturally occurring nucleoside or a synthetic nucleoside bound via a phosphodiester bond, or an oligonucleotide or polynucleotide containing the nucleoside, n1 or n2 are identical or different, and each denotes an integer of 0 to 50, provided that n1 and n2 are not both zero, and that not all of the n2 are zero at the same time, n3 denotes an integer of 1 to 50, provided that when n1 and/or n2 are 0 or 1, n3 is 2 or more, B1 and B need not be identical, and R need not be identical.

6. The nucleoside analogue according to claim 1 wherein

the amidite derivative is phosphoramidete.

7. The nucleoside analogue according to claim 4 wherein the amidite derivative is a phosphoramidite.

8. The nucleoside analogue according to claim 5 wherein the amidite derivative is a phsphoramidite.